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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/628,828	07/28/2003	Wulf Bramer	100727-53/Heraeus 405-KGB	5851
27384	7590	05/18/2006	EXAMINER	
NORRIS, MCLAUGHLIN & MARCUS, PA 875 THIRD AVENUE 18TH FLOOR NEW YORK, NY 10022			VAN, LUAN V	
			ART UNIT	PAPER NUMBER
			1753	

DATE MAILED: 05/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/628,828

Applicant(s)

BRAMER ET AL.

Examiner

Luan V. Van

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 April 2006.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-9 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

Applicant's amendment of April 26, 2006 does not render the application allowable.

Status of Objections and Rejections

The objection to the disclosure has been withdrawn in view of Applicant's amendment.

All rejections from the previous office action are maintained.

Election/Restrictions

The restriction requirement between the apparatus (claims 1-9) and the method (claims 10-16) is still deemed proper for the reasons stated in the previous office action filed October 26, 2005. The apparatus claims 1-9 are examined. Claims 10-16 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention.

The requirement is therefore made FINAL.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-3, 5-6 and 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ruebel in view of Ehrhardt and Palaika et al.

Regarding claims 1-3, Ruebel teaches a device for electrodepositing metallic, prosthetic, molded, dental components, whereby the device has: a beaker for accommodating an electrolyte bath (column 6 lines 31-37), a stirring system for moving the electrolyte bath (column 6 lines 60-64), a heating system for heating the electrolyte bath (column 3 lines 18-26), at least one anode (figure 1, anode 4) and at least one cathode (figure 2, cathode 16), and a unit for supplying electricity that is connected to the at least one anode and to the at least one cathode (Examples).

Ruebel differs from the instant claim in that the reference teaches heating the plating solution (column 3 lines 19-26) but is silent with respect to the specific lamp for heating.

Ehrhardt teaches heating a plating solution in a glass beaker "by means of a 250 watt infrared lamp and a thermistor temperature controller unit. The lamp was positioned approximately 1.5 in. from the side of the beaker and directed toward the top half of the solution" (column 2 lines 33-40).

Palaika et al. teach a method of heating or baking of an electrodeposited coating by means of infrared radiation ("IR"). Furthermore, Palaika et al. teach "Generally, there are three categories of IR. These categories are: near-IR (short wavelength) having a peak wavelength from 0.75 to 2.5 microns ("u") (750 to 2500 nanometers); intermediate-IR (medium wavelength) having a peak wavelength from 2.5 to 4 u (2500 to 4000 nanometers), and far-IR (long wavelength) having a peak wavelength from 4 to 1000 u (4000 to 100,000 nanometers). Any or any combination or all of these categories of IR can be used for the heating to at least partially cure the coating" (column 5 lines 31-41). Although the method of Palaika et al. is directed to heating or baking of an electrodeposited coating, it does not teach away from applying infrared heating to other substances, such as a plating solution. Nevertheless, Palaika et al. teach the infrared radiation by definition has a range of wavelengths from 0.75 to 1000 μm .

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Ruebel by replacing the heating means with the infrared lamp of Ehrhardt, because heating the solution with the infrared lamp

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increases the electrodeposition rate (column 3 lines 24-26 of Ruebel, and column 2 lines 55-58 of Ehrhardt). Further, it would have been obvious to one having ordinary skill in the art to recognize that the infrared lamp of Ehrhardt would emit an infrared with the wavelength of the instant claims, because Palaika et al. teach that the infrared radiation by definition has a range of wavelengths from 0.75 to 1000 μm .

Regarding claim 5-6, the infrared lamp of Ehrhardt would be suitable for producing either polychromatic or monochromatic radiation. Furthermore, it would have been obvious to one having ordinary skill in the art to use either polychromatic or monochromatic radiation, because polychromatic and monochromatic radiation are suitable for heating a solution.

Regarding claim 8, Ruebel teaches a temperature sensor is present for measuring the temperature of the electrolyte bath (column 6 lines 60-64).

Regarding claim 9, Ruebel teaches the anode and the cathode are attached to a lid that is suitable for sealing the glass beaker (figures 1-2).

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ruebel in view of Ehrhardt and Palaika et al., and further in view of Grenon.

Ruebel, Ehrhardt and Palaika et al. teach the apparatus as described above in addressing claim 1.

The difference between the references and the instant claims is that the references do not explicitly teach the glass beaker is formed from quartz glass.

Grenon teaches that a quartz beaker is a suitable container for an electroplating process (column 3 lines 52-54).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined apparatus of Ruebel, Ehrhardt and Palaika et al. by using the quartz beaker of Grenon, because a quartz beaker is transparent to infrared radiation and is a suitable container for an electroplating.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ruebel in view of Ehrhardt and Palaika et al., and further in view of Kyriacou et al.

Ruebel, Ehrhardt and Palaika et al. teach the apparatus as described above in addressing claim 1.

The difference between the references and the instant claims is that the references do not explicitly teach the stirring system is a magnetic stirring system.

Kyriacou et al. teach that the stirring system is a magnetic stirring system for an electroplating process (column 16 lines 55-58).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined apparatus of Ruebel, Ehrhardt and Palaika et al. by using the magnetic stirring system of Kyriacou et al., because magnetic stirring is simple and inexpensive and is suitable for agitating a solution in a beaker.

Response to Arguments

Applicant's arguments have been fully considered but they are not persuasive.

In response to applicant's argument based upon the age of the Ruebel reference, contentions that the reference patent are old are not impressive absent a showing that the art tried and failed to solve the same problem notwithstanding its presumed knowledge of the references. See *In re Wright*, 569 F.2d 1124, 193 USPQ 332 (CCPA 1977).

In response to applicant's argument that the teaching of Ruebel and Ehrhardt is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Ruebel teach that it is desirable to heat the electroplating solution above room temperature in order to "ensure a particularly rapid deposition" (column 3 lines 24-26). Ruebel's silence with respect to the specific heating means suggests to one having ordinary skill in the art that any heating means would be suitable for heating the electroplating solution. It is conventionally known in the art to use infrared heating for heating a plating solution contained in a beaker. Ehrhardt, for example, teach using an infrared lamp to heat a plating solution in a glass beaker (column 2 lines 33-40) in order to raise the deposition rate (column 2 lines 57-58). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have replaced the heating means of Ruebel by using the infrared lamp of Ehrhardt, because using an infrared lamp increases the rate of electrodeposition as

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taught by Ehrhardt, since the infrared lamp increases the temperature of the plating solution. Furthermore, the fact that Ehrhardt's invention relates to electroless deposition is not relevant to the motivation for replacing one suitable heating means for another.

The examiner believes that he has met the requirement for a prima facie case of obviousness.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Luan V. Van whose telephone number is 571-272-8521. The examiner can normally be reached on M-F 9:30-6:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on 571-272-1342. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LW
May 11, 2006



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